

OLDEST BEE PAPER
IN AMERICA

THE AMERICAN BEE JOURNAL

ESTABLISHED
IN 1861

DEVOTED TO SCIENTIFIC BEE-CULTURE AND THE PRODUCTION AND SALE OF PURE HONEY.

VOL. XVII.

CHICAGO, ILL., FEBRUARY 9, 1881.

No. 6.



Published every Wednesday, by

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974 WEST MADISON ST., CHICAGO, ILL.

TERMS OF SUBSCRIPTION:

WEEKLY—(52 numbers) \$2.00 a year, in advance.
Three or Six Months at the same rate.

SEMI-MONTHLY—The first and third numbers of each month, at \$1.00 a year, in advance.

MONTHLY—The first number of each month, at 50 cents a year, in advance.

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Free of postage in the United States or Canada.
Postage to Europe 50 cents extra.

Entered at Chicago post office as second class matter.



For the American Bee Journal
The Weekly, Introducing Queens, Etc.

G. H. ADAMS.

As I have been a reader of the AMERICAN BEE JOURNAL and a keeper of bees for over 3 years, I thought I would express myself in regard to the JOURNAL. I like it very much and cannot do without it. Friend Newman, you may put me down as a life subscriber of the AMERICAN BEE JOURNAL. I am glad it is to be a Weekly. I think \$2 a year very low for a weekly bee paper. I will say I think there is just one article in the December number, p. 565, written by Mr. G. M. Doolittle, "Plenty of bees; plenty of honey," that is worth the whole amount of the subscription to beginners, let alone all the other good articles.

As I have not sent in my report for 1880, I will now do so. I opened the season with 40 colonies of bees; 12 of the number were good, strong colonies—the others were very weak. The 12 gathered 700 lbs. of comb honey; two of the twelve, where I could side-box, thereby getting on 68 2-lb. sections at once, obtained for me 250 lbs. I had 100 lbs. of honey stolen off the hives this last fall. My honey sells readily for 20c. per pound, it being mostly white clover and goldenrod. The other weak colonies being in fine condition for winter, and what is best of all, are all Italianized. I have but 2 black colonies in my apiary. My colonies increased from 40 to 64; sold 1, leaving me 63, all packed in chaff, in their winter quarters. In the spring I will give my method of packing in chaff. I sold 5 Italian queens.

Now, I will give my method of introducing queens, which I have discovered and adopted as the only true method. It is this: Take the queen from the hive you wish to introduce another to, then take all brood combs from the hive, that is those combs that contain eggs, larvae and sealed brood; fill up the vacancy with combs of honey or foun-

dation from other hives and place the brood in other hives in their places. Close the hive and in a few minutes great excitement will prevail in the hive, rushing out and up the sides of the hive in wild confusion. Now drop the queen right among the bees, and the excitement will immediately stop and the queen will be safely introduced. I have introduced several valuable queens by this method with success. Of course, you must always wait until this excitement prevails and success is certain.

North Nassau, N. Y., Jan. 5, 1881.

For the American Bee Journal.

Two Queens in One Hive, etc.

J. D. ENAS.

The December number of the AMERICAN BEE JOURNAL notices two queens in one hive. I was at the Mechanics' Fair, at San Francisco, last August and September, for three weeks. When I returned home, as soon as convenient, I examined several hives. One had a

Our unusual heavy frosts have kept it back. The rains are backward, and the new grass has just begun to make its appearance. My bees are in good condition, but colonies are not large. I have not extracted any honey since June; have plenty of goldenrod honey for wintering. I save all my dark honey in the frame, and keep it for wintering. Moths are destroyed by fumigating with sulphur. I consider it a better way to melt up empty comb and give foundation in the spring. My cappings furnish me with enough wax, with what old comb I melt up, for my own use without buying.

We had a very short season for surplus in this neighborhood. With 47 colonies in the spring, I obtained about 1,800 lbs. of extracted and 350 lbs. of comb honey, and have 100 Langstroth frames of goldenrod, all sealed over, for feeding between now and spring, increased to 70 colonies, besides rearing about 50 young queens. I sold and reduced to 60 colonies, mostly pure Italians. I found it very hard to get honey in small frames the nights being

was in September, 1879. I always recommend it to others, especially to a novice.

I find that the Langstroth frames mold here in the winter, and they hold too much for comb honey, so I have made hives this season $2\frac{1}{2}$ in. shorter in length of frame, which give me better satisfaction. I use the same surplus apartments; have no portico, but the front projects about 3 inches. The hives are ready for surplus sooner, and the bees are forced into the sections sooner. To illustrate: I had a swarm come off on the 13th of May, 1880; the queen, with clipped wing was on the ground. I removed the hive to a new stand; as soon as bees were out I put a new hive on that stand; gave them one frame of brood and stores, 2 frames of stores in drone comb, and 7 empty frames. On the 15th, I took away 20 empty frames, placed 2 of drone comb in each side of the hive, and the 7 frames of foundation (full sheets). In just 7 days, on the 22d of May, at the entrance, something looked suspicious. Expecting to see the foundation on the bottom, I opened the hive, and found the foundation all built out, full of honey, and nearly capped over; I took out 5 frames, gave them 5 empty combs, and put on 27 sections, $5\frac{1}{2} \times 6 \times 1\frac{1}{2}$. Just 3 weeks from that time, I took off 21 sections, solid, and 5 frames sealed over; the other 6 sections from $\frac{1}{2}$ to $\frac{3}{4}$ filled; but as the honey flow was cut short, I gave them to other colonies. I obtained about 75 lbs. of honey from this colony, of superior quality. I did not sell any of my honey until October, and shall dispose of all of my surplus at fair prices, and my honey has a good reputation. I have to compete with honey, repacked, at the fruit factories, at San Francisco, and labeled "Orange Bloom Honey." Perhaps all the orange is on the label. Wherever I can leave a sample, I do not fear for the result. I use the best of machinery, even if I have to pay high express charges to get it, and my honey is clean and pure. I have it in different styles of packages, and even on draught, to suit different customers.

It is difficult to save empty combs here, as moths will breed, I think the whole year; but in the hives that I use, my bees will keep the combs free from moths, even if they do not cover $\frac{1}{4}$ of them.

Napa, Cal., Dec. 13, 1880.

For the American Bee Journal.

Bees Dying in Indiana.

E. C. FARQUHAR.

In the the spring of 1879, I bought 2 colonies of bees in box hives, transferred them to movable frame hives, and at the same time divided them, making 4 colonies—2 of them queenless. But they soon reared queens, and done well under the circumstances. I then bought another colony, transferred and divided as before, also bought 1 young swarm, and by fall I had 13 colonies, and 1 natural swarm left me after it was hived. All went into winter in good condition. I also obtained about 100 lbs. of surplus, and had plenty left to winter on. One colony lost its queen in the spring, and I united it with another. During the winter I bought 5 more colonies, and took 19 on shares; 3 of these starved, and two were destroyed by worms. Thus



Melilot or Sweet Clover.



White or Dutch Clover.

young queen; I supposed at the time that the old one was superseded; in about a fortnight after, I did not find her, as I supposed, but found a queen with only one wing, the other gone entirely. I supposed it to be the old queen. I make a practice of clipping one wing as soon as proved to be laying, although I leave at least a half; but she had wings on only one side. Her color was duller than the young one, when I observed her before. I was in doubt about which queen was in that hive. The first week in December having occasion to look over the hive, I found the young queen with perfect wings, apparently all right, and at home on the combs. By the shape, I should judge that she had been fertilized, but there were no eggs in the cells from first to last, and the colony was only about medium. There are no flowers in bloom at present, and very few colonies have brood.

I observed my Italians gathering worm-dust from an old decayed tree, as a substitute for pollen. I find very little pollen either old or new in the hives. We generally have the manzanita in bloom from the middle of November, but it has not commenced to bloom yet.

cool and the season not over 6 weeks, at most. Swarming was backward; my first swarm came off May 10th. They come out generally in February and March.

On account of the late and cold rains, queen-cells were cut down by the bees, and in one instance I found 8 queens in a first swarm. The old queen was superseded. I saved 7, one was killed in the cluster, and I had to do considerable work in a heavy drizzling rain. Owing to sudden and frequent showers, many of my cells were hatched in an incubator, and I even had to keep them and feed them several days for clear weather. I lost a good many virgin queens on that account in introducing them.

I like the introducing cage mentioned in the AMERICAN BEE JOURNAL so well that I shall use no other. I have had considerable success with it. The first time I used it, I had a queen out of a hive 14 days, had no hive ready, and so I put her in with another queen, in one side of the hive, with no division-board. Four days after, I found the 2 queens on different combs at home, I made two colonies successfully. That

when I had them all transferred and straightened up, I had 31 colonies, I increased to 48, but obtained no surplus worth naming. I hired Mr. Cramer 2½ months to attend to my bees, while I made hives and attended to the farm necessities. My expenses for the season, for hire and material, was about \$115. my income for hives, transferring, &c., was about \$103. I have on hand hives and lumber worth \$70, empty vessels for extracted honey (which I did not get), worth \$7. So, you see, my time and labor was not all loss. I have a shop 14x20 ft. square, with a room up-stairs. At the back, or east side of the shop, is a shed extending 54 ft. east, and 10 ft. wide, high enough to walk under. Here I have my bees arranged in 2 rows, fronting north and south, on trestles 6 in. high. This makes an aisle 4 ft. wide between and at the back of the hives, so the passing bees do not interrupt me in handling them. This fall when preparing them for winter, I turned the north row to front the south, and weather-boarded the north side and east end of the shed, the shop forming a wind-break on the west.

I was sick in the fall, run behind with my work generally, and did not get to prepare my bees for winter until after the cold spell in November, and I found several colonies dead. Bees are dying in this locality badly. They seem to have a dysentery. I think I will lose my entire stock. I have 1 Italian queen which I bought of W. O. Pearce, Winchester, Ind., he said he bought of T. G. Newman & Son. She is a fine queen, gentle and prolific. I also reared a few very fine queens from her last summer; but I fear I will lose all, for they are dying in every hive. I have a thick woolen absorber over each colony, but the trouble seems to be impure or unhealthy honey, causing a dysentery.

Since writing the above I have seen some more of my neighbors who had a few bees, but all were dead but 1 colony. Another man had something over 60 colonies, all were dead but 2 about 2 weeks ago.

Trento, Ind., Jan. 1, 1881.

For the American Bee Journal.

Lower Ventilation, Adulteration, Etc.

WM. CAMM.

Let me say to friend Shuck that I used a much finer mesh, in the wire I put over my lower ventilators than he recommends, for I was afraid of giving the moth-worm a chance to get through and build its cocoon under the bottom-board. It seemed so distasteful to the bees, as they waxed it all up at once, that I gave it up. By all means our best way would be to so pack, or wrap up the hives, as to prevent condensation and subsequent congealation of moisture. Where hives are double, like the Armstrong, for instance, ventilation of the outer case is sufficient in the hottest weather, and with the entrances wide open, I have had such a hive stand in the broiling sun and not a comb melt down, though all around and about the frames and sections, was air-tight, as the bees always make it if they can; and I think we ought to be guided by the instinct of the bees themselves in this matter. The bees seal up everything they can, except the entrance, about that part of the hive that is immediately about them, and outside of that man should use his skill and ingenuity. There is much about what we call animal instincts that we have not fathomed yet, and I am loth to force upon my bees a condition against which they so persistently rebel. Pitch up the eyes of a bat, and yet he can fly safely in a room where there are many objects for him to strike against; throw a squirrel from a height of several hundred feet with only jagged rocks to alight on, and he will suffer no harm; so when I see my bees so strenuously try to stop all lower ventilation, I conclude that it is something else that is required, not that.

Though I do not believe that any amount of direct legislation against adulteration will avail much, yet to keep the matter before the people will put them on their guard, and they will be chary of buying unless they are sure

the article they buy is genuine. The great and final remedy for adulteration will correct other forms of swindling, cheating and many other crimes. In the foundation of our social system, and our laws, we have unfortunately made two very great mistakes; we recognize gain as legitimate where there can be no natural increase, and we recognize no wrong, no violence to humanity, in trafficking and speculating in that which sustains human flesh and blood, though we call trafficking and speculating directly in human flesh and blood slavery; yet so far as results are concerned, the effect is the same. Correct these fundamental errors and the spoils being no longer to the shrewdest, adulteration, with many other sins, will disappear. There are plenty of other papers in which questions of this kind can be discussed, and I only refer to it here because it is relevant to the subject.

Bees have had one or two short flights in the last two months, and a week ago one of my lightest colonies, in a single-walled hive, unprotected, were at home and cheerful. This colony has been dropping fresh brood upon the bottom-board all winter.

I am much pleased with the change from the Monthly to the Weekly, and hope that you will find it profitable and pleasant to continue it in this shape.

Winchester, Ill., Jan. 22, 1881.

For the American Bee Journal.
Size of Colonies, Ventilation, etc.

E. B. SOUTHWICK.

I notice in the report of Mr. E. A. Morgan that he thinks 3 pecks of bees a good colony, and that each of his 24 colonies would measure that amount. Now my frames are 12x13 inches. I place them $\frac{3}{4}$ of an inch apart, when the frames are full of brood or honey it would take a hive of 27 frames to hold that amount of bees—just three times as large as my hives are. Is not his statements a little large. I believe that bee-keepers consider that if they have a strong colony of bees that cover 9 frames, the size of mine all over, in the working season, they have a strong colony. When bees are working in a hive they require at least twice the room they occupy when clustered together in a measurable form. So really a good colony is about 4 quarts of bees.

My opinion of colonies is that a peck of bees constitutes a very strong colony; that 4 quarts is a fair sized colony; that 2 quarts is a small colony, yet not too small to be safely wintered in a judiciously arranged hive. I have wintered many such colonies, crowded on 4 combs, and found them as profitable as any I had.

I notice in another place a very excellent article on wintering, by the same author. It is first-rate, though rather expensive. I think there is one mistake in it, about upward ventilation. He says the impure air being carbonic-acid gas and heavier than air, will settle to the bottom and escape. This is true, were it pure carbonic-acid gas. Now let us see what are the facts in the case: The air is composed of 20 parts of oxygen to 80 parts of nitrogen; chemically united it always carries with it a quantity of water in the form of vapor and some other matter that we will not notice. Now, as air is drawn into the lungs the oxygen unites with the carbon of the blood, forming carbonic-acid gas, which is absorbed by the mixture in the form of vapor, and mixed with the 80 parts of nitrogen, forming a chemical mixture which, when breathed out is much lighter than air and is found in the upper part of the hive in the form of frost or water, unless we have an upward ventilation to allow it to pass off. I would not recommend placing a stovepipe over the bees to let this pass through, but rather a thick chaff-cushion which will allow this foul stuff to pass into it if not through it and not admit the warmth of the bees to pass off.

I notice in an article by D. K. Bouelle, his experience with some eggs of the queens; if he is correct does it not prove that the queen does not regulate the sex of her offspring. I never could accord that power to the queen. I be-

lieve that the sex of all the animal kingdom is regulated by the situation and nutriment of the egg or germ. Who says it is not? There are many theories about bee-keeping which we may make doubtful.

Mendon, Mich., Dec. 10, 1880.

For the American Bee Journal.
Upward Ventilation.

F. H. MINER.

I believe I was the first writer in this country to oppose upward ventilation, in discussions with Mr. Baldwin and others in the BEE JOURNAL and *l'arabe Farmer*. A storm of indignation was aroused, but almost every man had seen bee-trees, and knew they had tight tops to keep out the storm and keep in the heat. The united and learned array of acknowledged authorities lost their prestige; facts could not be set aside by theories. Only those who had that "dangerous thing, a little learning," were wild enough to ignore instinct and sneer at nature. Anybody may preach at them now, but they still persist in covering bees with porous cloth, depriving them of heat and water, essential to me. The bees do not tolerate this stupidity, but glaze them over whenever they can.

When I read Mr. Langstroth's directions to give the bees little water on a sponge, I thought they glazed the inside surfaces, and the cold that connumed them condensed the water that they needed. But if we cover them with porous absorbents (cloth) the water may be needed (see JOURNAL, page 11).

The swarm of hive inventors, while the waves of oblivion are rolling over their constructions, delight to sneer at the old log gums. Each one has found perfection, but every 2 or 3 years repudiates his old humbugs, gets up a new one, and only gets out of the mud into the mire. I loved bees, and laid awake nights contriving a hive, and found that I did not know anything. In my despair the thought occurred: the flight of the bees to the hollow tree proves they were designed for and adapted to each other. I have since then been a student of nature. Artificial circumstances and necessities require artificial adaptations. We should not use gums, but we must go to nature for principles, and respect instinct.

There are here a few old bee-keepers who raise their hives from $\frac{1}{2}$ inch to 2 inches, on blocks, to get rid of the mous. I thought they would be too cold and exposed to mice and robbers. I depend on a fly-hole 3 inches above the bottom. I bought some of my bees of Simeon Burkett, 5 miles north of Watseka. Last spring he had 90 colonies in good condition, and says they wintered well the year before when so many (more than three-fourths of the bees in this county) died, mostly smothered, having no fly-holes in the side, only notches cut with a saw in the bottom. Severe cold and contraction, followed by excitement and expansion, outlets closed, no air to generate heat, protuse perspiration condensed and freezing with dead bees at the bottom. One man with 22 colonies, another with 30, lost all; several others nearly as bad. But the bees on blocks came through and kept dry. The mice got in some, and some were robbed.

They should have been set down on the approach of spring. Bees need very little air when quiet in mild weather, and keep fly-holes clear. I wintered 48 on the summer stands without loss, covered with snow in the coldest weather; 3 or 4 failed through loss of queens in the spring. These bees are doing well this year. The hives are 1 foot square, but those I bought from Mr. Burkett were tall, populous ones; the holes I bored in front were not large enough for so many bees in such severe weather, and I have lost 2 colonies, and a good many bees in others. So, let us give our bees plenty of lower ventilation.

I suppose 10 or 15 times as much air is needed in a cold snap, because 10 or 15 times as much heat must be generated to maintain a living temperature. The ranges of comb attached at the top and sides divide the room into narrow spaces. A hole in the side might not

aerate thoroughly more than one or two spaces. Only from the bottom, where the comb is not attached, can all the spaces be equally aerated. These old basswood-gum men, who believe in tight tops and hate frame hives, never read the JOURNAL, and could not know much. In a futile attempt to get rid of the moths, they simply blundered on a successful method of aerating their bees, and thus preventing smothering. If they knew they had solved the problem so many have studied in vain, would they not crow? They have my thanks. I thought so much cold air would freeze the bees, but find it the only thing to keep them warm and dry, thus preventing their being poisoned by a mass of rotting bees under them. They should be protected from the wind. An inch at the bottom all around would not lose as much heat as a $\frac{1}{2}$ -inch hole in the top.

I expect to hear of great losses this winter from smothering. In 1878 I wintered 48 colonies on their summer stands, in hives with tight tops, and covered with snow in the coldest weather. The last 2 years have been poor. My square hives have been all right, but the tall hives—18 to 24 inches high—the small hole I put in the side was too small in severe weather.

Crescent City, Ill., Jan. 17, 1881.

For the American Bee Journal.

Shall we Improve our Bees?

HENRY ALLEY.

Now that we have the Italians, Cyprians, Holy Land and Hungarian races of bees, it strikes me that our bees can be improved very much. How best to do these things is the question. Can it be done by keeping the imported stock pure, or by crossing? I think it can be done by both plans.

It is a well-known fact that by crossing up fowls we get a larger, as well as a hardier race; now this same principle applies to most everything in the animal kingdom. In rearing chickens the male should be changed for each succeeding brood. In-and-in breeding would soon run out a coop of fowls; they can be bred "to a feather" by in-breeding, but that quality would be at the expense of health and hardiness. Now, this must work the same with bees; but I must confess the fact that there are cases that seem to knock my theory into pieces. I have found farmers who have kept bees in the same place upwards of 40 years, without any indications of deterioration. I found one such last fall. I came across a man who had 10 colonies of bees, all black, and in old box-hives, as a natural consequence. He told me that he had kept bees in the same place over 40 years; and had never been out of them during all that time, and he could not say that they had ever returned him any heavy income. Of course they did not pay him much, neither did he devote much time or expense on them. He had one swarm early in May last, and remarked that he never had one so early before. Now, these are stubborn facts, and rather against our in-and-in theory. But it should be remembered that not as much in-and-in breeding would be done in this case of 40 years' standing as an extensive queen-breeder could do in 2 years; while the old farmer would not rear more than one queen to each colony each year, the queen-breeder would rear hundreds.

Notwithstanding the above facts, I believe that close breeding will ruin any race of bees. Now, in all my experience in rearing queens, I never permitted the queen that I was breeding from to rear any drones. I have reared 3,000 queens from one mother, and never saw a drone from her, and none were ever raised from her eggs. If good queens are what we want, then of course the less in-and-in breeding the better.

Will it do to cross the pure Italians with pure Cyprian or Holy Land queens? I think it will; in fact, I know it will. The way is now open so that we can obtain a superior race of bees; by careful breeding and crossing-up the desideratum can be reached, in a few years. Now, here is another point: Have not the Holy Land and Cyprian bees been

in-and-in bred as well as the old farmer's above alluded to? Of course they have. The natives of the Holy Land and Cyprus Island care nothing about improved bee-keeping. If these bees, in their native country, are superior to ours, then we can improve them, without doubt, so that they will be much better. Does not the reader see that by crossing these races we can improve them? Of course he can see it; and believe it, too.

If it were not for the honesty and reputation of the dealer, many of those who have purchased Cyprian and Holy Land queens would say that they are beautiful Italians, and nothing more. The keen observer and practiced eye will discover the peculiarities of the Cyprian bees, even though they look and appear like pure Italians.

I think I can perfect a race of bees the coming season that will be superior to anything we now have; in fact, I now have some queens that are very large and handsome as well as unusually prolific—a cross between the pure Cyprian and Italian. I cannot say about their working qualities, as they have had no chance to do much since they came into existence in August, 1880. Now, I am intending to rear queens from these improved mothers to introduce into my own colonies. They will pass for pure Cyprian or Italian queens; few can tell the difference. If these queens will lay eggs in proportion to their size, it will be necessary to enlarge the Langstroth hive to twice the usual dimensions. These queens are the result of careful breeding and crossing.

The reader will see I am in favor of crossing the Italian and Cyprian. Who can doubt for a moment that by crossing with pure Cyprian and Italian bees that we cannot get a superior class of workers? By crossing we shall undo in-and-in breeding that our bees as well as the Cyprians, have been subjected to for years. Remember, that the bees to be crossed should be selected from our best, purest, handsonest and most prolific. Now, here are my ideas for improving our bees. If any man has a better way, let him rise and say so.

Wenham, Mass.

For the American Bee Journal.

Giving Bees Water in the Cellar.

E. A. THOMAS.

Several years ago I had 3 or 4 colonies get very uneasy in the cellar during the latter part of winter. I tried to quiet them by giving them more ventilation, but it was of no use, they continued to grow more and more uneasy towards spring. The weather was still too cold and unfeasted to put them out, and I had about given them up for lost, when I concluded to try an experiment. I thought the reason for their getting so uneasy was because they were breeding, and as I knew bees consumed large quantities of water when breeding, I concluded to try and make them take water in the cellar. I made holes through my chaff mats and inserted bottles of water with cotton cloth tied over the nose, letting the bottle come close down to the cluster of bees. The effect was almost magical; they became perfectly quiet and remained so until taken out of the cellar. These colonies and a large amount of brood and were hatching bees quite rapidly when taken out in the spring. The next winter I determined to experiment a little further with water. I prepared half of my bees so that I could give them water in bottles, and about the first of February I commenced to give it to them, and continued to do so until spring. As they were so very quiet, I thought I would see what they would do if their water was taken away from them. Accordingly, I selected one of the colonies that had taken the most water, and took the bottle away from them. They at once manifested their disapproval by making an uproar and boiling out of the hive into the portico. I put back the bottle of water, and they immediately quieted down and remained so. Now for the result:

When taken out in the spring, I found that the colonies I gave water had

plenty of hatching bees and from two to four frames of brood, while the others had but very little sealed brood, and some none at all. Last winter I gave water to all my bees, which enabled me to keep them in the cellar perfectly quiet until all danger from spring dwindling was past. I never saw a lot of bees in as good condition the first of May—strong in numbers, and with plenty of hatching brood.

Doubtless, many will think that it is too much trouble to give their bees water, and I think myself that it is quiet a chore, but it is these small chores that makes bee-keeping a success.

It takes a man of good judgment and a keen insight into the habits and requirements of our little pets to make a good bee-keeper. I think bees need a great deal of attention and care during the winter, especially towards spring, when the weather begins to get warmer.

Coleraine, Mass., Jan. 25, 1881.

SELECTIONS FROM OUR LETTER BOX

Away Down East.—I had 30 colonies of bees last fall in pretty good condition, which I packed for winter. They are in the Quinby standing and Electric hanging frame hives, packed with rye, oats and buckwheat chaff—some put in loose and some in cushions. My bees have not had a flight since about the middle of November last, but appear to be all right. Some hives are nearly covered with snow. Besides the 30 on the summer stands, I have 11 nuclei in the cellar, with 2 and 3 frames each, strong in bees and honey for the number of frames. There are 2 and 3 colonies in one hive, with thin division boards between. They are all right so far. I will report next spring what success I have in wintering them.

ROBERT DOWNS.

Naugatuck, Conn., Jan. 28, 1881.

Struck by Lightning.—A few years ago I had my bees placed in rows in round gums; lightning struck 2 of the gums, bursting a good-sized piece out of one, and quite a sliver out of the other. I thought that every bee in the hives was killed; in a few hours they came crawling out of the hives. It looked as though all the bees had clustered on the outside, and they would not fly for three days unless something came near them. It made them the worst bees to sting I ever saw. In one of them I hived a swarm 13 years ago last June. It still remains a prosperous colony. In 10 years it has only swarmed twice, and has wintered on the summer stand. I keep it to see how long a set of combs will last, or the colony die. A few years ago a man named Hastings came into this neighborhood, who said that a set of combs would last 16 years. Mr. Hastings died at Carlisle, Iowa, 2 years ago.

HIBERT CLARK.

Palmyra, Iowa, Dec. 6, 1880.

Bees Uneasy.—Since I wrote you last, I notice that some of my bees appear to be troubled with dysentery. Those affected, are all young natural swarms which issued in the latter part of July and in August. They had not stores enough to winter on, hence were fed from October 1st until the 15th, coffee A sugar syrup, enough to carry them through. I have built an extra No. 1 bee-house for them, with double walls, filled with chaff 12 inches thick; but the house is left open towards the east. Within this chaff-house I have packed my bees in chaff, leaving an opening for the bees as recommended by Prof. Cook for out-door wintering in chaff-boxes; but ever since the middle of November none of my bees have had a flight, and on the 23d of November they were packed. Now lately I notice that some bees have come out from those colonies which were fed, and it seems as if they soil somewhat the entrances of their hives. Would it be advisable to remove the front part of the packing arrangement on warm days (if we get any), enlarge the entrance, and thus induce them to take a flight; or would

you advise me to let them alone? All my bees are well cared for. They have good, well made hives, they are properly contracted by chaff division-boards; they have nice woolen quilts to cover them over the brood-chamber, and the top covers are filled in with clean and dry straw. In lieu of honey, they were fed with coffee A sugar, and they have not been disturbed the least since they were carefully moved into their winter-quarters. The entrance tubes are protected against mice, by wire-cloth, but space is left for the bees to come out. What can I do to bring them relief?

W. M. STOLLEY.

Grand Island, Neb.

[Better let them alone till safe for them to fly; undoubtedly the long confinement, and the feed given them having granulated, has caused the symptoms you complain of; or, may be, they have commenced breeding pretty extensively, which frequently causes unusual activity among the bees, and a necessity for voiding their feces follows activity.—ED.]

Heavy Rain-Fall.—Enclosed find statement of the rain-fall at Vicksburg for the season, from January to November, 1880, which will about tally with our locality. You will see what chances a bee-keeper had.

O. W. BLANTON.

Greenville, Miss.

The unprecedented rain-fall of this season will long be remembered as the most calamitous that has ever visited this portion of the great cotton belt. To the courtesy of Mr. Guthrie, the officer in charge of the weather and signal station in this city, we are indebted for the following valuable and authentic figures, showing the aggregate amount of water, measured in inches and hundredths, which has fallen from the clouds during the eleven months of the year 1880 which have now passed away:

January	1.85	inches
February	4.60	"
March	11.23	"
April	9.09	"
May	5.99	"
June	6.36	"
July	4.89	"
August	5.67	"
September	10.51	"
October	5.75	"
November	14.15	"
Total	90.09	inches

This makes the enormous aggregate of seven feet and six inches of rain in the space of eleven months; and when it is remembered that the average of the rain-fall in this latitude, taking a series of years by decades does not exceed fifty-five or sixty inches annually, the immense down-pour of water for the present year is still more apparent.

Vicksburg Commercial.

A New Subscriber.—I am well pleased with the Weekly BEE JOURNAL. My bees had a fly to-day, and are all alive and doing well. Owing to the severe winter, I have my bees packed on their summer stands with hay on the north and west. I have packed them for the last 4 years in that way, and have had good success.

DAVID HOHENSHELL.

Collins, Ill., Jan. 31, 1881.

Temperature in Cellars.—Bees here are wintering very poorly. Many of them are dying in this section and east of here, generally, where they are kept out-doors, without much protection. Our bees in cellars are all right. We control the temperature which cannot be done so well out of doors.

J. V. CALDWELL.

Camargo, Ill., Jan. 22, 1881.

Doing Well.—I like your Weekly very much and when my 6 months are up intend to renew. Bees all packed in chaff and every one (21 colonies) answered to roll call yesterday. Have not had but one fly since 2d of Nov., and that on Dec. 13. With the many others I wish you a prosperous New Year.

J. W. KEERAN.

Bloomington, Ills., Jan. 17, 1881.

Kentucky Notes.—I have been itching to write you congratulatory upon the shape of your new Weekly BEE JOURNAL. As the ladies say, "it is just too nice." I wanted to get more data from our bee-keepers, which is not over-encouraging, for about two-fifths are dead and the balance to hear from on the 15th of April. Cause—last year was the poorest honey season in the memory of the "oldest inhabitant," and it being the second consecutive poor season, many did not recuperate from the previous year, and this winter, the hardest in the memory of the aforesaid, and lack of interest, from loss of same (@ 25 per cent.), all combined, left the few poor bees ill prepared to come out with flying colors. My own apiary (20 colonies) is in excellent condition, plenty of stores and strong, large clusters. I examined them to-day and am much pleased, they are having a fine flight to-day. In my next I will give my experience in wintering, if it should not trespass too much.

W. VAN ANTWERP, M. D.

Mt. Sterling, Ky., Jan. 30, 1881.

Fertilizing Cage.—I hope you will give M. B. of Fincastle, Ind., a hearty welcome and encouragement on the subject of fertilization in confinement. I ask this of you, because I know you have very little faith in its accomplishment. I wish you had given the full name, for it is hard to wait for his arrangement. I want to get ready for another summer's practice, if there are any bees left after this cold weather. Give all the cream in the Weekly, no matter where found. With it and a successful fertilization cage, and plaster of Paris foundation mould, and a live bee-man, success must be had.

LOUIS HOFSTATTER.

Louisville, Ky., Dec. 31, 1880.

[We must confess to considerable incredulity regarding successful fertilization in confinement, to the extent to make it practicable, although no one would hail the successful solution of the problem with more gratification. We have no doubt "M. B." will give full particulars of the *modus operandi* in the columns of the BEE JOURNAL at the proper time.—ED.]

In the Cellar.—I have received the first number of the Weekly. It is nice to have it weekly, but I fear it will get destroyed, or torn and soiled. We saved from robbing and starving 84 colonies, from which we have 119 in the cellar and 6 out-doors. We have taken off about a ton of surplus, mostly basswood, and about half a ton on hand. Bees can be wintered almost anywhere sometimes, and sometimes not anywhere. We have always wintered in the cellar, and have never lost any that were in condition to winter when put in. Three of us put away 100 in 3 hours, and take them out in the same time. The bee cellar is partitioned from the family cellar by building-paper, made perfectly dark. The hives are piled in rows 7 high, like cord-wood, with the front entrance open, and no other ventilation. We keep the outside door open most of the nights, which keeps the air pure; the dead bees are scraped out of the hives and cleaned out of the cellar. We put them in before very cold weather, and keep them in till spring. I am satisfied that money paid for the JOURNAL is the best investment that can be made of \$2, if a man has 5 colonies of bees or more. We used about 100 lbs. of foundation last season, made on Olm's machine, and have yet to see any that I think equals it; at any rate, it is all we want. The cards of comb are as true as a board, and the bees accept it immediately.

THOS. TRACY.

Nashua, Iowa, Dec. 27, 1880.

On Summer Stands.—I have taken the BEE JOURNAL since 1871, and do not like to do without it. I have 106 colonies of bees, all in good condition, on their summer stands, which I think is the best place for them, after trying various ways of wintering.

P. D. JONES.

Mt. Morris, N. Y., Dec. 31, 1881.

THOMAS C. NEWMAN,
EDITOR AND PROPRIETOR,

CHICAGO, ILL., FEB. 9, 1881.

Accumulating Disasters.

From every point of the compass,—north, south, east and west—come tales of losses and disaster in wintering. The poor honey yield of last season, combined with the early advent of cold weather, and its long continuance without even a slight intermission to admit of a “fly,” is telling with fearful mortality among the poor bees; and many bee-keepers who met with discouragement in the spring, and with whom there was no encouraging yield during summer or fall, and now have lost even the few they had left, may well be pardoned for becoming “blue” over the prospect in future. Many fed their bees enough to last till the traditional “January thaw” took place; but January has come and gone, and no moderation of the weather has taken place of sufficient length to give the bees a good flight, or allow of feeding. In this latitude cold weather set in during October, and caught most of the bees not yet properly prepared for even an ordinary winter, and too many are in that condition yet. Ordinarily, there is plenty of good weather in November for feeding and packing bees, or putting them in the cellar, but this has been an exception. Then, in January—certainly by the 20th, generally sooner—a mild spell and thaw of several days’ duration has occurred, when bees could be fed and looked after; but this winter one cold spell has but partially moderated to be succeeded by even colder weather; snowstorms have abated only to be followed by stronger ones; western winds have changed only to “nor’-westers” and northers; our balmy breezes have been transformed into “blizzards,” and the gales have assumed the proportions of hurricanes and tornadoes.

Not alone in this latitude have these extremes occurred. From Canada to Texas, Minnesota to Florida, Maryland to California—all over the Continent—come reports of weather without precedent. One correspondent no sooner complains of the weather at 15° below zero in his locality, than another puts him to shame by writing of the 40° below in another location. Railroad trains have been irregular as a rule—not as the exception. From England and the Continent we learn the epidemic of extremes also prevails. Bee-keepers there, as here, have become quite familiar with the oft-repeated line from Shakespeare—

“Now is the winter of our discontent”—

but the remainder of the quotation is ignored, for nothing has tended to make it “glorious.” With many, already, the uncertainty of wintering has been relieved by the *certainty* of loss, and others await with anxiety the slowly approaching months of March and April to put an end to their doubts and misgivings.

It has been truly said, “there can be no great loss without *some* compensating gain,” but perhaps in this case the gain

will be principally in bitter experience. Opinion has been greatly divided as to the best method of wintering—whether on the summer stands or in the cellars; whether with chaff-packed hives, air-walls, over-absorbents, lower ventilation, or no ventilation at all. New theories will be promulgated, and old ones abandoned or confirmed, while the “I told you so” class will be more persistent than ever, should their theories and claims be substantiated by success. Should the bees all be dead in an apiary, there is still the consolation of having the hives and combs left, and the total loss is but partial, after all. Most of the sufferers will not be discouraged, but with hope of better success in future will try again, and with the experience of the past to guide them in the work to come, must succeed in overcoming all difficulties, and their labors will be crowned with victory.

It will be interesting to scan our columns when the result is fully known, and compare the various methods of wintering with the different degrees of success. Of course, very many will come through the winter with but trifling loss, but the majority of bee-keepers will, in years to come, recall the winter of 1880-81 as the season of disaster to bees. The BEE JOURNAL will possess a peculiar interest to all, affording an opportunity to avoid the errors of the past, and containing timely suggestions from its many contributors for guidance in the future.

After all, it is refreshing to read the prediction of Dr. Brown, of Georgia: “Without consulting Vennor, or any other of the prophets, I prophesy that the year 1881 will most abundantly reward the industrious bee-keeper.”

Colechian Honey.

As bearing upon the frequent allusions to poisonous honey, Mr. H. G. Colwell, of Columbus, O., quotes from ancient history the following in reference to the famous Colchian honey. We have frequently seen allusions to this honey and its singular effects, but have never been favored with a satisfactory solution of the problem he propounds. Perhaps some of our learned contributors can give the information desired.

During the retreat of the famous Ten Thousand from Asia Minor to their homes in Greece (B. C. 401), they passed through the territory of the Colchians. The country literally flowed with milk and honey, the soldiers were well received, and refreshed themselves after the innumerable hardships they had undergone, by a repose of thirty days. They partook of the Colchian honey, and it produced a singular effect upon the Greeks. It was very well flavored and inviting to the palate, and when eaten in small quantities caused a species of intoxication; but those whose gluttonous appetites lead them into excesses, were seized with violent fits of vomiting and diarrhea and sometimes thrown into a state resembling madness.

Query:—Why did the ancient Colchian honey cause the above disorders?

The editor of the BEE JOURNAL is now absent. He left Chicago on the 31st ult., to attend the Northeastern Convention, at Utica, N. Y., on the 2d, 3d and 4th inst., and will return via Ohio, to attend the Convention at Andover, O., on the 8th and 9th inst. He left in a snowstorm, which prevailed during the whole trip to Utica, where he arrived 9 hours behind schedule time.

Food Adulterations.

It is gratifying to contemplate the general interest being awakened on the subject of food adulterations, in all parts of the country. Not only are the masses of the people, individually, falling into line, and closing up the ranks of the great army of opposition to fraud and swindling, but societies, corporations and communities are becoming awakened at last, and the good work is beginning to assume shape and dimensions that will eventually demand active recognition in the halls of Congress. Every mail brings letters encouraging us in the good work we have commenced of an unrelenting warfare upon this dangerous and enormous system of thieving. Meantime, let the agitation be continued, and everywhere denounce the sale of any article, whether in quantities great or small, by any other name than its proper one. We expect shortly to be able to present our readers with a perfected bill embodying our views, and providing for a general remedy to all classes of honest producers. The matter is now under consideration by an eminent jurist and legislator of Iowa, and we have no doubt it will meet the long-felt wants of the public, and give our readers a basis or standpoint upon which to work.

We are satisfied a general law will be the only redress, and our former belief regarding the futility of special legislation by State bodies, is strengthened by scores of letters and congratulations. In confirmation, we give the following letter written by Prof. J. Hasbrouck, to the *Bee-Keepers’ Magazine*, and published in the February number of that paper. As it explains itself, we will make no further comment at this time:

Probably many of your readers will be interested to know the fate of the effort to enforce the law passed by the Legislature of New Jersey in the winter of 1878-79 against the sale of adulterated honey. In the early fall I gathered 15 or 20 bottles of what is sold in the groceries of Jersey City as “choice honey,” and, upon analysis, finding them to consist almost entirely of glucose syrup, flavored with a little honey or wintergreen oil, I went before the Grand Jury of the December term of Court in Hudson County, and entered complaints against several prominent grocers of whom I had bought the specimens. I am sorry to say that the “grand inquest” failed to indict. Their reasons I could judge from the questions asked me.

We are sorry to learn of the misfortunes of Mr. A. F. Moon, and feel confident our readers will all sympathize with him. His has indeed been a trying time. The following is an extract from a private letter recently received:

The past has been a most unfortunate season with me. I have received no honey, and had no queens or bees to sell, and have not been able to transact any business, on account of my lameness, which ended in the loss of my limb. In fact, I was compelled to go on crutches all the season. I am somewhat better now, but have not been to our postoffice since the 11th of last May, which is only 2 blocks from me. This, you know, is hard for a man accustomed to walking and stirring around. I live in hopes that this year will be a good one for both bees and honey. We had a few cold days in December, but the weather is warm now; the bees are flying, and some are carrying in bee-bread. By the way, the Weekly came in to-day’s mail, which just fills the bill; it is just what all bee-keepers want—a Weekly BEE JOURNAL. Long may it live, with success to its editor. A. F. MOON. Rome, Ga., Jan. 16, 1881.

Artificial Comb Honey.

The Weekly BEE JOURNAL made its appearance, and I also add my testimony of approval in the change. It will no doubt receive all the support necessary to its successful retention as a weekly.

The following appeared in the Toronto *Globe* yesterday and surprised me not a little, and as I could not believe a word of it, I wrote to the editor and contradicted it, for could there really be such an institution in existence without your knowing it? You would certainly not think of leaving the bee-keeping fraternity in such blissful ignorance. Well here it is:

“Some unsophisticated purchasers of honey imagine that by buying honey in the comb they are sure of getting an unadulterated article. A great mistake. There is an establishment in Boston where artificial combs—not foundation merely, but combs—are made in such perfection that it would require an expert to detect the fraud. Paraffine, not wax, is the material used. When the combs are made they are filled with imitation honey made from glucose, worth 3 or 4 cents per lb., and flavored to taste. A hot iron is then passed over, the cells are sealed, and the ‘comb honey’ is ready for sale.”

What use will there be for your much-cherished coming bee, *Apis Americana*, in the face of such comb honey—making by automatic process in your midst. I hope for a cheerful rejoinder from your pen on the above.

In your number for Jan. 19, your correspondents, Greiner Bros., refer your readers in one of their paragraphs to page 355 (1879), where he has recourse to the what he calls “shaking off process,” but I cannot find anything in that JOURNAL on that point. Will he please explain? I am much interested to know how done, &c. I have gone through all the same processes to prevent swarming with the same results as he has, and not only removed every queen-cell, but at the same time took all the honey away from 28 colonies in 1879, and every one swarmed within 2 days after the operation. Colonies that I ran for the extractor, I never had one yet to swarm. I have had them preparing queen-cells and capping it, and yet not swarm, and this all in a good flow of honey, and its preparation not being a supersedure either, for the cells had all disappeared inside a week, and no honey removed from the hive during the time. Of course the colony had all the combs they could cover.

C. WURSTER.

Kleinburg, Ont., Jan. 25, 1881.

Mr. Wurster was right in denying the article in the Toronto *Globe*. We frequently hear, from the unsophisticated, doubts as to the purity of comb honey, and it is not to be wondered at, when almost every delicacy, and, in fact, nearly every necessary in the food line, is adulterated; but the manufacture of artificial comb has never yet been accomplished. Neither do we believe that bees have been seduced into making combs from paraffine wax. So that all may rest assured of the purity of the wax composing the combs in which the bees store their honey. As to inducing bees to store glucose for honey, it is a matter of doubt whether it can be done with sufficient profit to tempt the cupidity of any dishonestly-disposed bee-keeper; and it would require a very skillful bee-keeper to succeed in having it stored and capped over. Again, the feasibility of capping or sealing honey with a hot iron—well, the writer of the paragraph referred to might put in a few weeks very industriously experimenting in that line, and, after repeated failures, he would conclude that the success of the fraud existed only in his inventive imagination. Of course, we make no allusion to the difficult task of depositing the glucose in the cells, which will be found a work requiring

considerable time, a steady nerve, and more patience than the ordinary price of comb honey will repay.

On referring to page 355, 1879, we find no correspondence from Mr. Doolittle, to which Messrs. Greiner Brothers refer in the Weekly BEE JOURNAL of the 19th ult., and we leave to them to explain the process to which they refer, as some mistake has occurred in the citation.

Flat-Bottom Foundation.

The following letter from Mr. O. J. Hetherington, was read before the Michigan State Bee-keepers' Convention, held at Lansing, Dec. 8, 1880. The minutes were not received at this office until the 26th ult., so we could not publish them till now. As much interest has been manifested in the subject of using full-size sheets of foundation in the surplus boxes, and as this letter bears principally upon that subject, we give it a place here *in extenso*. The letter bears date East Saginaw, Mich., Dec. 8, 1880:

I was in hopes to have been with you to-day, but as my bees are not in the cellar yet, I do not feel as if I could spend the time, until I get them out of the cold; and it is bearing down so much more heavy than usual, that I feel like working night and day till I get them in.

I wanted very much to be at the Convention this year, as I have several points I would like to present, as to my experience this summer with flat-bottom foundation of full size in sections. I have used it full sized in all my sections but about 200, that I had of last year's, that had triangular starters in, about 3 inches on a side. Using both I could see the difference.

The bees work the flat-bottom as near the shape it ought to be as possible, which compels them to thin it down, so it is about as thin as they make the comb themselves. This year was a poor season, but I think I secured twice as much comb honey as I should if I had not used the foundation full size in the sections. Perhaps in a good season it would not make quite as much difference; but from my experience, the past summer, I know they will make very much more honey.

At the time the bees commenced to gather honey from boneset, they obtained it very fast for two days (that happened to be clear and pleasant), and during those two days the bees drew out the foundation the full length of the cells and filled it with honey; then we had nearly a week of wet, rainy weather so the bees could hardly do any thing, and they did not seem to do much of any thing to the honey in the sections. My theory is, that the weather was so wet and damp that the bees were unable to evaporate the honey so they could seal it up, for as soon as the weather came off dry and pleasant, they had everything sealed up in 24 hours.

Also the Italians will commence work in the sections as soon as the blacks, and they both will commence much sooner than when only starters are used. I would not recommend any thing but the thin flat-bottomed foundation, as that is the only kind the bees will work the base of the cells thin enough to answer.

The Prospect for honey in California is promising. Mr. S. D. Barber, in the *Semi-Tropic Californian*, says: "We find many of our hives with three and four sheets of brood well filled, from eggs to the hatching bee, on January 4th, 1881. The prospect here north of the city indicates an early and prosperous year for business. Be ready. Do your work in time. A day lost with bees is forever lost. What is termed luck with bees is only another name for careful and skillful management."



GLEANINGS.

Cyprian Bees.—The following is an extract from Mr. Frank Benton's last letter, dated at Larnaca, Cyprus, Dec. 14, 1880. We devote so much space to it as it is a subject on which information is eagerly sought, and but little experience has yet been had in this country:

Under all conditions and at all times of the day, even from daylight until 9 o'clock at night, I have handled Cyprian bees, without smoke, and with no veil nor even a hat on my head. Bare-headed, bare-handed, with low slippers on my feet, no coat nor vest on, my shirt cut low in the neck, and all my garments thin, I have worked hour after hour among the Cyprians just as fast as I could make my limbs and body move, transferring colonies, dividing swarms into nuclei, and putting up queens for shipment, all the while shaking and brushing the bees about just as though they were so many Italians, and a big basswood harvest was on hand. I say *shaking* them, for they can be shaken from the combs quite as easily as can black bees, and *brushing* them is a dangerous experiment unless they are well filled with honey. Now, it must be remembered that all this was done at a time when no honey was coming in, and when feeding had not been kept up regularly, the colonies that had not been fed and those that had having been opened indiscriminately; the handling was often at the most unseasonable hours of the day; and, lastly, there were often many visitors present; yet I was rarely stung, and I recollect but one instance in which a visitor was stung.

The only points I observed carefully were the following: I opened the hives with extreme caution; the quilt was removed slowly, and the bees left to themselves for a moment before I touched the frames; then the first frame was very carefully removed, after which no further especial caution was needed, except that there must be no jarring of frames, either in removing them, in handling, or in replacing them. Any one would be likely to say, "These things are all very good to observe with any race of bees; but will they prevent Cyprians from stinging, when their observation in handling blacks and Italians under the conditions you mention, would avail little as far as keeping these races under subjection is concerned?" It seemed to answer with me, and I discovered that the Cyprians were very susceptible regarding the sudden admission of light into the brood apartment, and they resent in the strongest manner any jarring of the hive or combs. I think they are far more likely to be aroused by either of these things than are the Italians or blacks, and are not as easily subdued with smoke, or, in fact, at all. They will follow the bee-keeper with great pertinacity as he leaves the hive, going a long distance, and even through several doors, for a chance to sting. When a hive is once thoroughly aroused, the better plan seems to be to close it and leave it for an hour or more.

They meddle with passers-by who do not touch them, less, even, than the Italians. The above would likely lead to incorrect inferences should I close this subject without stating the conclusion which the season's work among the bees of Cyprus has caused me to form regarding the relative rapidity with which Cyprian and Italian bees can be handled; hence I state here that I fully believe I can handle the Cyprians with one-half greater rapidity than I can the Italians; that is, with proper management, a given operation in manipulating bees can be performed with three Cyprian colonies while the same operation is being done with two Italians....

The bees of Cyprus are very uniform—surprisingly so, I think. We obtained

colonies at many points distant from each other, and saw bees in many places where no purchases could be made, but all presented the same appearance, taking into account, of course, the age of the bees and the amount of food they were likely to have in their bodies. The true Cyprian is a yellower bee than the Italian; indeed, I think the average Cyprian is yellower than the brightest Italian. I refer to the worker bee alone. Its body is more hairy, and the abdomen more slender than will be found among Italians. When filled with honey, the worker shows three yellow bands, as does the Italian. Mr. Cori, of Bohemia, who first described these bees, and procured the first colony from Cyprus, stated the worker bee has only two yellow segments, but he surely failed to count the end segment, next to the thorax, without which the Italians would have but two yellow bands. The fourth yellow band, as with the Italians, is sometimes seen, but a more distinctive mark is that the segments back of the yellow bands are so tipped with whitish hairs as to give the abdomen of the Cyprian a very ringed appearance. The two most distinguishing marks are, however, the following: The pure Cyprian is yellow on the under side of the abdomen, from the tip nearly forward to the thorax; and, second, the shield on the back of the thorax between the wings is very prominent and plainly yellow. On account of its shape, I call this the crescent, and it shows that its bearers are from the Turkish empire, or descended from those who did come from this far eastern land. The Cyprian drones are in general much more mottled with yellow than the Italians; and though they are not uniform, many are of a very brilliant golden hue.

I find the Cyprians active, strong-winged, sturdy defenders of their hives, fighting against fearful odds to preserve an existence, exceedingly keen-scented, so that no drop of sweet escapes their notice under conditions which would conceal it from other races of bees. They are very prolific, and rear brood late in the season. We have had frost here, yet to-day I find brood in all stages in hives of Cyprians. One other quality of great importance is noticeable: A strong wind is heeded by the Cyprians, and, upon its approach, they gather in their hives to avoid it; or, if the day open windy, they do not venture forth. Those who have them in America will note this, and that they will not dwindle as the Italians do during the coming spring. Still another point in their favor is, that they can be shaken from the combs very much as though they were blacks; but if left to themselves do not run off, having in this particular the same disposition as the Italians, namely, they spread evenly over the combs and remain quiet when the latter are handled.

Preventive of Robbing.—Mr. Val. D. Urich gives the following as his method of stopping robbing:

I will give you my way of curing robbers, which always proves satisfactory to me whenever I try it. When the robbing commences, and the colony to be robbed does not fight the robbers away, I close up the entrance pretty small; then I take a small piece of broom corn (which I like best) or quite a little whip, and stick it in at the entrance, and shake it pretty often. That makes them so cross that they will mount a robber before he is halfway down to get in; but put on a veil, or they will take you for a robber. If they have full sway of a colony before I find it out, I close it up entirely till next morning, when I make them defenders before the robbers are up. Sometimes it must be done pretty often before they stop it.

Paper Honey Comb.—F. Della Torre makes the following suggestions:

Will you induce Mr. Gray to make a machine that will turn out artificial honey comb complete—made from shellac tissue paper, and in a way similar to that described in Quinby's "New Bee-Keeping," which uses tin? I am sure it would be a success, for I have used a small square of hornet's-nest comb, in-

serted in ordinary brood comb with success. After "uncapping" it to $\frac{1}{2}$ in. depth of cell, I just dipped the rough edges in melted wax, to make the bees think they were composed of that material all the way to the bottom. The shellac would serve to hold the strips together in this case, as the solder does in the other. These little bottomless cells could then be stuck to a flat sheet of shellac paper (one set on either side), then by touching the edges to melted wax your comb is finished.

Dysentery.—The following is given as a remedy for dysentery:

My bees had the dysentery the worst I ever saw. I went into winter-quarters with 13 colonies, and before January I had lost 6, and 7 had died on account of the cold weather and dysentery, so I had to practice something to keep up my 6 colonies. I put them in the cellar, took out their stores, and gave them a frame of candy, and the same time I fed them syrup in which I put a few drops of mint. Both were made of granulated sugar. I also gave them all the ventilation I could to get out the foul air. In about a week they were all well, and their excrements are now dry, and the bees are all well up to date.

BEE-KEEPERS' MAGAZINE.

Apis Dorsata and Apis Zonata.—We make the following extract from a letter from Mrs. Frank Benton, dated at Larnaca, Cyprus, Dec. 10, 1880:

You doubtless know of the many hindrances my husband has had to contend with during his stay upon this Island, also of his different attacks of sickness—ophthalmia and tropical fever. Now that cooler weather has come his former vigor is gradually returning, and no doubt he will soon write you again.

Just at present he is very busy making preparations for a journey to India and the East India Islands, his object is to procure the long talked of bees, *Apis Dorsata* and *Apis Zonata*; also any other races of excellence which he may find there. He will also look up some other points, such as gathering seeds of important honey plants, and of different grains that may be profitably cultivated in our native land. He will take with him thirty or thirty-five colonies of Cyprian and Syrian bees, most of which will be taken to Java.

Should success attend him, which we sincerely hope will be the case, the new bees will be sent directly to America.

His proposed route from here to Batavia, Island of Java, is as follows: Beyrouth, Jaffa, (Syria); Port Said, (Egypt); through the Suez Canal and Suez; then down the Red Sea to Aden, (Arabia); across the Arabian sea to Bombay, in Hindooostan; thence to Colombo, Island of Ceylon; then to Singapore, Farther India; probably, also, to Timor, to the Celebes and the Phillipine Islands.

He will leave here the 21st of December, and hopes to return to Cyprus early in the spring, in order to continue rearing and shipping Cyprian queens.

California Prospects.—A writer at North Temescal, gives the following encouraging report:

At this time (Dec. 20) the prospects for an abundant honey crop were never better. Frosts were a month earlier than usual—rain six weeks behind time, now the earth is saturated with water, grass is growing with a will and it is almost fit for grazing. From present indications we are going to have a mild winter, with plenty of rain withal. If this should happen to be the case, and March north winds do not visit the fertile plains and valleys of this coast, and should the atmosphere be charged with that degree of humidity which is so conducive to the secretion of nectar, then the honey yield of this State will be enormous.

Dr. J. P. H. Brown makes the following encouraging prophecy: "Without consulting Vennor, or any other of the prophets, I prophesy that the year 1881 will most abundantly reward the industrious bee-keeper."

Michigan State Convention.

Met in Pioneer Hall, State Capitol, Lansing, pursuant to call, Dec. 8, at 11 a.m.

So little time remaining before noon—Prof. Cook moved that the meeting spend the morning hour in conference, and said L. B. Baker's bees were in the open air without chaff or other protection, and the Professor would ask what the different members would do with them, seeing that they had now been out so long in the cold?

C. B. Link stated that dampness was the principal cause of loss.

L. B. Baker said he intended to take them in but thought best to let them alone till warm weather, as they seemed to be all right so far.

The Secretary was asked what he would do with them, and said that if he had a good cellar as Dr. Baker's, he would take them in carefully and slant the hives so the water would run out; then partially open the top so the hives would dry out.

Acting Pres. Ashley, of Ypsilanti, stated that if the season was as last he would leave them out; but as it now seems, he would favor the opinion of Mr. Bingham, and take them in.

B. A. Salisbury, of Battle Creek, favored wintering in boxes filled with chaff 3 inches deep all around, and preferred it to cellar wintering.

Mr. Cole, of Livingston, thought it a bad time to move bees; he moved some into the cellar once when so caught, and lost heavily; he said 90 per cent. of the bees designed to be protected were now in the open air unprotected having been caught by the early winter.

Mr. Smith asked why bees did not winter as well in frame as box hives, without protection.

Prof. Cook said Mr. Hurlburt lost his regardless of the old box hives he used; he did not think the hive was the cause. Neither was he fully satisfied that chaff hives would entirely obviate the dangers of out-door wintering. We need another 1873 winter to test them. Our few past winters have been such that we could not safely predict what a severe winter would do. If Dr. Baker should move his bees into his cellar and then warm it slowly there would be but little danger.

Prof. Cook suggested that hereafter our meetings be held the first Thursday after the first Tuesday in December, and that time was unanimously chosen; and Battle Creek the next place of meeting.

1 P.M.—Vice Pres. Ashley, of Ypsilanti, called the meeting to order.

Prof. Cook said that black bees were more prompt in entering surplus boxes, but did not regard that of importance, as by the present means we had no difficulty in getting Italian bees to start combs in the lower part of the hive after which they could be raised, and the Italians would go on with the work without loss of time. Black bees are said to dwindle less in spring, if so, it was an advantage. Italian bees fly early, and do not run on the combs.

Mr. Salisbury wintered a small colony on candy and flour and water, and it was the best colony he had the next season.

Mr. Robinson said getting honey was not all; it had to be kept and the market waited for; had no trouble in selling all he could get.

Prof. Cook said uncapping took time; as soon as it was partially capped and thick it could be extracted. Never had any spoil.

Mr. Cole never let his bees cap more than a place as large as his hand before extracting; never had any sour.

Mr. Robinson had several barrels spoil, and care was required unless thoroughly ripe.

Mr. Bingham said he believed it unsafe to extract before it was essentially sealed. Believed the honey better and richer for remaining some time sealed up in the hive.

Mr. Perry had noticed that black bees left air under the caps, while Italians did not. He believed this fact was the reason why black bees make whiter combs.

wanted honey-gatherers, and favored the lighter Italians.

Prof. Cook said he believed we should get the best bees from importations. I am perfectly willing to go on record in that matter. Nature does her work better than bee-keepers. The best I have ever seen are those that have been imported. If I had been at Cincinnati I should have protested against the opinion going out that the American-bred Italians were best.

Mr. Robinson, of Pewamo. I have a few nice bees—but they have cost me \$5 to get them off—that is, changing from light to dark, and I am glad to get rid of them. I now have only dark; a man could not give me yellow Italians.

W. R. Cole, of Bellevue. In August I found my Italians on red thistles and doing well, while my blacks worked on clover, and accomplished very little.

Mr. Harper stated that some advocated black bees, but he believed that none were to be found pure. All that we now have are dark-mixed Italians, and the yellow are best. If I had to keep black bees, I should not keep any.

L. B. Baker. We have had black bees, and if they were best we have had something to be proud of.

Mr. Smith said the largest comb honey yield he had ever had were from black bees. I have an imported queen and have bred from her 18 others; she was very dark. They have certainly stored no more honey than my light bees. I have an apiary away from home of pure black bees, and they have produced more honey this year than my others. But I always show my light bees to strangers. He said his stinging bees are his best workers, and he liked them.

Mr. Bingham, of Otsego, stated that he cultivated dark Italians—but had both yellow and dark, and pure blacks. In the fall always reduced the number of his colonies—sometimes more than half, but never killed a queen whose colony had done well because she was black, or yellow, or dark—"Pretty is that pretty does."

Mrs. L. B. Baker, of Lansing, who has kept a strict account, says the dark Italians have proved much the best honey gatherers with her. A resolution was passed that it was the sense of the Convention that dark Italians were preferable.

Prof. Cook moved that all the essays from abroad be received and the writers thanked for their kindness in sending them. The resolution was unanimously passed.

Mr. Robinson was called for, and said surplus was what he kept bees for; used the extractor mainly; did not extract from the brood chamber, and never extracted till the honey was ripe and mainly sealed; uses a Bingham & Hetherington knife and like it best; can do work faster and better with it than any other; sell most of my honey in Pewamo; carry 20 to 25 queens through the winter for spring use; can winter them safely on one comb.

Prof. Cook thought the wintering of extra queens a matter of great importance; he had never failed in wintering bees in small hives. They cannot be wintered in chaff hives, but can in the cellar.

Mr. Salisbury wintered a small colony on candy and flour and water, and it was the best colony he had the next season.

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Mr. Perry had noticed that black bees left air under the caps, while Italians did not. He believed this fact was the reason why black bees make whiter combs.

Prof. Cook said, take off your sections as quick as done. All the nice section honey is made quick and removed at once.

Mr. Robinson said honey would not granulate if kept up to 90° but would if below 60°.

Mr. Bingham asked how much more extracted honey a colony would yield than section.

Mr. Robinson said he extracted 200 lbs. per colony; but should not expect more than 50 lbs. from the same colony, if in sections.

Mr. Hilbert said 30 colonies gave 3,000 lbs. in sections.

Dr. H. B. Baker, Sec. State Board of Health; Dr. J. H. Kelley, of same Board, and Mr. L. B. Baker, were appointed a committee to urge legislation calculated to prevent the adulteration of honey and other sweets.

Mr. Benham, of Olivet, stated that he had had some experience in comb foundation. He wanted to furnish and had furnished good material. Had hand-some foundation well drawn out that the queens refused to fill with eggs, and was fearful the wax was impure. After making from his own wax, with his own machine, had no trouble. Thought a machine would pay. Foundation was invaluable.

Mr. Perry said he would not do without it. Bees accepted the Dunham foundation most promptly.

Mr. Robinson preferred Dunham foundation and thought it would soon go out of use; he was willing to go on record, that it raised too many bees.

Mr. Smith liked it, said it made 4 to 6 days saving in filling a hive with combs.

Mr. Waldo said full frames sagged somewhat, when filled with it. I think it beautiful, and favor its use.

T. F. Bingham had filled his shallow frames and hived full colonies on Dunham foundation with the mercury at 90° without any sagging; but had always taken the precaution to place an empty hive under the one containing the foundation, that the bees might have room to distribute themselves so as not to be compelled to cluster on the foundation while it was being drawn out. Then after a few days removing the empty set. Believed this plan would usually prevent sagging even in Langstroth frames.

Mr. Smith had used wired-foundation and it had worked nicely; saw no objections to the wire; said the flat-bottomed was the thinnest he had ever seen.

Mr. Waldo stated that in all the aparies he had visited where foundation was used, he had found more or less sagging.

L. B. Baker said he had used foundation and had never had any sag, but had never put large swarms on it.

Prof. Cook said he believed foundation a success.

Mr. Perry said some used would settle, while some would not.

[A letter was here read from Mr. O. J. Hetherington, which will be found elsewhere in our columns.—ED.]

Pres. Ashley and Mr. Robinson were of the opinion that there was a loss of from 6 to 15 per cent. of wax in the process of making wax into foundation.

Mr. Perry thought the loss in working pure yellow wax was merely nominal.

Considerable discussion was brought forward as to the means to be adopted so as to unite all the bee-keepers.

The President said those who attend must condense and arrange so as to tell just what they wished in a few words.

Mr. Robinson said he did not want to tell all he knew. There were more bee-keepers now than he wanted. More honey raised would not increase the demand or raise the price.

Mr. Perry said the business would regulate itself.

Prof. Cook did not like the Chinese plan. Parties who formerly talked it, saying we had too many bee-keepers, were now taking another course.

Mr. Robinson said alsike clover had been a favorite with farmers about him. It made good hay, seeded well, produced about 5 bushels of seed to the acre; if sown with wheat in the fall, it would bloom and yield seed the following season. It will bloom the same season, if sown early, and seed the first crop. He said, if this Convention could bring the adulteration and foul-brood matters

fairly before the people, it would prove itself one of the most profitable of Conventions. T. F. BINGHAM, Sec.

[The essays and correspondence read at this Convention have been published in the *BEES JOURNAL*.—ED.]

Cortland Union, N. Y., Convention.

The annual meeting of the Cortland Union, Bee-Keepers' Association was held at Cortland, N. Y., Jan. 4, 1881, and well attended.

The discussion of the day was begun by E. H. Knapp upon "Rearing Italian queens." He related the methods pursued by himself and brother. During the last season they had raised upwards of 100 queens, and principally by the practice of "grafting." It consisted essentially in removing the eggs or larvae from queen-cells in the earlier stages—the larger cells having previously been all removed—and replacing larva 6 to 12 hours old, taking from worker cells of the colony to be bred from. The bees took care of them in the same manner that they would if undisturbed. The best queens were produced by taking larva soon after hatching; thought it the most satisfactory and certain of any method he knew.

The discussion was continued by Pres. Pierce, Messrs. M. C. Bean, E. Cory, J. H. Kennedy and others. The relative merits of this method as compared with others, the length of time after the operation before the cells might be removed, probabilities of their being torn down, the age of larva it was best to take, the effect of increasing the amount of royal jelly in the cell, and other points, were dwelt upon.

The discussion of the afternoon session was begun upon the subject of foundation in hives and surplus boxes, by W. L. Coggshall. He had used several kinds; had tried that with high side-walls and with none; preferred the former; had used the Dunham and the Olm; had used the flat-bottom with good success in sections; he endorsed fully the article by C. C. Coffinberry, at the Cincinnati Convention; would not advise any bee-keeper to compel bees to make combs when foundation was at present prices. The discussion became interesting and lively upon the subject, and took up the rearing of brood over the wires in wired-foundation in full frames, and hiving bees upon foundation. It was participated in by Pres. Pierce, Messrs. E. Cory, R. H. Mellen, F. W. Smith, J. H. Kennedy, E. H. Knapp, M. H. Fairbanks and M. C. Bean.

"Wintering bees" was now introduced by A. G. Chapman. There were as many methods as bee-keepers; he said the beginner would find the opinions and methods of leading men at variance on the subject; but he thought there might be some factors common to all, obscure though they might appear in some. Dryness he concluded as one. His method he described to be as follows: He kept 2 colonies in one hive; this was set permanently on a good foundation. If had a lid like a trunk, with hinges on one side; inside, and leaving space for packing, was a box made cheaply of half-inch lumber that would hold 20 Langstroth frames and in the center he placed a thin division board to separate the 2 colonies. They were kept comfortable, and he liked the method. The subject was kept up by Messrs. Smith, Knapp, F. Schermerhorn, Mellen and Pres. Pierce.

The Association listened to the Annual Address of the President, Chas. A. Pierce. He spoke of the encouragement the Association was to all, and the progress it had made in the past year of its organization; it now numbering nearly 50 members. The Convention proceeded to the election of officers for the ensuing year with the following result:

President—Chas. A. Pierce, of Truxton.

Vice Presidents—J. L. Gillett, of Cortland; E. H. Knapp, of Fabius; W. L. Coggshall, of West Groton.

Honorary Vice Presidents—G. M. Doolittle, of Borodino; I. L. Scofield, of Chenango Bridge; H. D. Mason, of Fabius; Oscar Courtney, of Marathon; R. H. Mellen, of McLean.

Secretary—C. M. Bean, of McGrawville.

Treasurer—J. W. Cudworth, of McGrawville.

The Chair appointed Messrs. Kennedy and Lansing to act with himself as the Executive Committee.

The questions selected for discussion at the next meeting were: "What are the honey-producing plants that may be raised to advantage?" "Best method for strengthening weak colonies after spring dwindling?" "Which is most profitable, box or extracted honey?"

The Association adjourned to meet on Tuesday, May 10, 1881, at 10 a.m., in same rooms. CHAS. A. PIERCE, Pres.

C. M. BEAN, Sec'y.

Read before the California Convention.

Strong Colonies a Necessity.

S. D. BARBER.

The rapid progress made in apiculture in the last few years is remarkable. The increase in colonies and the production of honey has been marvelous to say the least of it, when we take into consideration the great loss of bees that California sustained in the years 1877 and 1879; yet apiculture is steadily moving on. The flora treasures of Southern California seem to be adequate to the great demands made upon them, and many have come to the conclusion that there is a science in bee-keeping that will pay the apiarist; but he will find that his success to a great extent very much depends upon his knowledge of that insect, the honey bee, and the natural laws by which they are governed...

The whole profit of apiculture consists in keeping the colonies strong. When honey is abundant, a large apiary will fill up rapidly in the same place where a few weak colonies will barely make a living. If desirous of making bees prosperous and profitable, protect them from wind and wet, extremes of heat and cold, destroy their enemies, and leave them to enjoy a sufficiency of food, accumulated by their own industry, and if any are in want, a timely assistance should be rendered them, and doubt not you will prosper as a bee-keeper. Our knowledge of bee instinct is such at the present time that no important point is longer a subject of controversy; and in the light thrown around the subject, no branch of moral economy can be more definitely regulated, or conducted with such absolute success. The laws which govern these industrious little insects are peculiar to themselves, differing from those which govern everything else; yet they are simple, and easily learned by any close observer. But when a deviation is made from those laws, loss, sure and certain, must follow. To be successful, then, in the practical art, the science on which it is founded must be thoroughly understood. It is easy for any person to tell when their bees are prosperous, and it is just as easy to tell when something is wrong; but it is not so easy to tell what that something is. It is no longer a matter of doubt that the natural swarming of bees can be controlled, and get such increase by artificial means, secured as may be desired, and at the same time a crop of honey obtained according to the season. The early swarms are most profitable, but never be in too much haste to divide your bees. Your rule in artificial swarming should be, never cripple the strength of the colony where the queen is to remain, as she diminishes her laying according as the number of bees are diminished. I prefer to take brood and bees at different times from my hives as they can spare them, and have young and fertile queens to form my new colonies. Many valuable colonies are ruined by being transferred from one hive to another in a wrong time, or by being divided without regard to the principles which should govern the matter to make it successful.

The Nebraska Bee-Keepers' Association will hold their Annual Convention, on the 10th and 11th of February, 1881, at Plattsmouth, Cass Co., Neb. Western Iowa bee-keepers are cordially invited to attend.

HIRAM CRAIG, Pres.

Special Notices.

The Volume of the BEE JOURNAL for 1880, bound in stiff paper covers, will be sent by mail, for \$1.50.

Notices and advertisements intended for the Weekly BEE JOURNAL must reach this office by Friday of the week previous.

When changing a postoffice address, mention the old address as well as the new one.

Constitutions and By-Laws for local Associations \$2 per 100. The name of the Association printed in the blanks for 50 cents extra.

Sample copies of the Weekly BEE JOURNAL will be sent free to any names that may be sent in. Any one intending to get up a club can have sample copies sent to the persons they desire to interview, by sending the names to this office.

It would save us much trouble, if all would be particular to give their P.O. address and name, when writing to this office. We have several letters (some inclosing money) that have no name. Many others having no Post-office, County or State. Also, if you live near one postoffice and get your mail at another, be sure to give the address we have on our list.

The date following the name on the wrapper label of this paper indicates the time to which you have paid. In making remittances, always send by postal order, registered letter, or by draft on Chicago or New York. Drafts on other cities, and local checks, are not taken by the banks in this city except at a discount of 25c., to pay expense of collecting them.

At the Chicago meeting of the National Society we were requested to get photographs of the leading apiarists, to sell to those who wanted them. We can now supply the following at 25 cents each: Dzierzon, the Baron of Berlepsch, and Langstroth. The likeness of Mr. Langstroth we have copied, is one furnished by his daughter, who says, "it is the only one ever taken when he was in good health and spirits." We are glad to be able to secure one of such a satisfactory nature.

We will send sample copies to any who feel disposed to make up clubs for 1881. There are persons keeping bees in every neighborhood who would be benefitted by reading the JOURNAL, and by using a little of the personal influence possessed by almost every one, a club can be gotten up in every neighborhood in America. Farmers have had large crops, high prices, and a good demand for all the products of the farm, therefore can well afford to add the BEE JOURNAL to their list of papers for 1881.

We have filled orders for quite a number of Binders for the Weekly BEE JOURNAL. We put the price low, 30 per cent. less than any one else could afford to sell them, for we get them by the quantity at wholesale and sell them at just enough to cover the cost and postage, the latter being 21 to 23 cents, on each. We do this to induce as many as possible to get them, and preserve their Weekly numbers. They are exceedingly convenient; the JOURNAL being always bound and handy for reference. The directions for binding are sent with each one.

The Marshall County, Iowa, Bee-Keepers' Association will meet at the Court House in Marshalltown, Iowa, on Saturday, Feb. 5, 1881, at 1 p.m. Subject for discussion: "Winter care of bees."

J. W. SANDERS, Sec.

A Bee-Keepers' meeting will be held at Walnut Hill, Barren Co., Ky. on Saturday, Feb. 12, 1881. All are invited.

H. C. DAVIS, Sec.

CLUBBING LIST.

We supply the Weekly AMERICAN BEE JOURNAL and any of the following periodicals, for 1881, at the prices quoted in the last column of figures. The first column gives the regular price of both:

Publishers' Price. Cloth \$2.00
and Gleanings in Bee-Culture (A. J. Root) 3.00. 2.75
Bee-Keepers' Magazine (A. J. King) 3.00. 2.60
Bee-Keepers' Exchange (J. H. Nellis) 2.75. 2.35
The 4 above-named papers 4.75. 3.75
Bee-Keepers' Guide (A. G. Hill) 2.50. 2.25
The 6 above-named papers 5.75. 5.00
Prof. Cook's Manual (bound in cloth) 3.25. 3.00
Bee-Culture (T. G. Newman) 2.40. 2.25

For Semi-monthly Bee Journal, \$1.00 less.
For Monthly Bee Journal, \$1.50 less.

Honey and Beeswax Market.

BUYERS' QUOTATIONS.

CHICAGO.

HONEY—The market is plentifully supplied with honey, and sales are slow at weak, easy prices. Quotations at 18@20c. for strictly choice white comb in 1 and 2 lb. boxes; at 14@16c. for fair to good in large packages, and at 10@12c. for common dark-colored and broken lots.—*Chicago Times*.

BEESWAX.—Choice yellow, 30@34c; dark, 15@17c.

NEW YORK.

HONEY.—Best white comb honey, small neat packages, 18@20c.; fair do., 15@16c.; dark do., 11@13c.; large boxes sell for about 2c. under above. White extracted, 9@10c.; dark, 7@8c.; southern strained, 8@9c.

BEESWAX.—Prime quality, 20@24c.

H. K. & F. B. THURBER & CO.

CINCINNATI.

HONEY.—The market for extracted clover honey is very good, and in demand at 10c. for the best, and 7@8c. for basswood and dark honey. The supply of comb honey is good, with a fair demand. We pay 10c. for the best.

BEESWAX.—13@14c.

C. F. MUTH.

SAINT FRANCISCO.

HONEY.—Our market is inactive for honey—no demand only for local trade. We quote comb 12@14c. Extracted, choice white, 7@7.5c.; off-colors and candied, 5@6c.

BEESWAX.—22@24c., as to color.

STEARN'S & SMITH, 423 Front Street.
January 22, 1881.

Local Convention Directory.

1881. Time and Place of Meeting.

March 12—Mills Co., Iowa, at Glenwood, Iowa.
April 2—S. W. D. at Corning, Iowa.
5—Central Kentucky at Winchester, Ky.
Wm. Williamson, Sec., Lexington, Ky.
7—Union Association, at Eminence, Ky.
E. Drane, Sec. pro tem., Eminence, Ky.
May 4—Tuscarawas and Muskingum Valley, at Cambridge, Guernsey Co., O.

5—J. A. Buckley, Sec., Clarks, O.
5—Central Michigan at Grand Haven.
10—Central Union, at Cortland, N. Y.
C. M. Bean, Sec., McGrawville, N. Y.
11—S. W. Wisconsin, at Darlington, Wis.
N. E. France, Sec., Platteville, Wis.

Sept.—National, at Lexington, Ky.

Oct. 18—Ky. State, in Exposition Bldg, Louisville, Ky.
W. Williamson, Sec., Lexington, Ky.

In order to have this Table complete, Secretaries are requested to forward full particulars of time and place of future meetings.—ED.

LADIES WHO APPRECIATE ELEGANCE and purity are using Parker's Hair Balsam. It is the best article sold for restoring gray hair to its original color and beauty.

Instead of sending silver money in letters, procure 1, 2 or 3 cent stamps. We can use them, and it is safer to send such than silver.

Any one desiring to get a copy of the Constitution and By-Laws of the National Society, can do so by sending a stamp to this office to pay postage. If they desire to become members, a fee of \$1.00 should accompany it, and the name will be duly recorded. This notice is given at the request of the Executive Committee.

A Great Paper.—We desire to call the attention of our readers to one of the greatest newspapers of the age—one that secures the best writers in this country and Europe, regardless of expense; has the best and fullest book reviews of any paper in the country; has able articles upon financial subjects; has departments devoted to Fine Arts, Biblical Research (something that cannot be found in any other newspaper in the United States), Farm and Garden, Insurance, Weekly Market Reports, Cattle Market, Prices Current, Dry Goods Quotations, etc.—in fact, a newspaper fully suited to the requirements of every family, containing a fund of information which cannot be had in any other shape, and having a wide circulation all over the country and in Europe. We refer to THE INDEPENDENT, of New York. "The largest, the ablest, the best." See advertisement, in another column, and send for specimen copy.

Books for Bee-Keepers.

Cook's Manual of the Apiary.—Entirely rewritten, greatly enlarged and elegantly illustrated, and is fully up with the times on every conceivable subject that interests the apiarist. It is not only instructive, but interesting, and thoroughly practical. The book is a masterly production, and one that no bee-keeper, however limited his means, can afford to do without. Cloth, \$1.25; paper covers, \$1.00, postpaid. Per dozen, by express, cloth, \$12.; paper, \$9.00.

Quinby's New Bee-Keeping. by L. C. Root. The author has treated the subject of bee-keeping in a manner that cannot fail to interest all. Its style is plain and forcible, making all its readers sensible of the fact that the author is really the master of the subject. Price, \$1.50.

Notice's A B C of Bee-Culture. by A. I. Root. This embraces "everything pertaining to the care of the honey-bee," and is valuable to beginners and those more advanced. Cloth, \$1.25; paper, \$1.00.

King's Bee-Keepers' Text-Book. by A. J. King. This edition is revised and brought down to the present time. Cloth, \$1.00; paper, 75c.

Langstroth on the Hive and Honey Bee. This is a standard scientific work. Price, \$3.00.

Blessed Bees. by John Allen. A romance of bee-keeping, full of practical information and contagious enthusiasm. Cloth, \$1.00.

Bee-Culture; or Successful Management of the Apiary. by G. Newman. This pamphlet embraces the following subjects: the Location of the Apiary—Honey Plants—Queens—Feeding—Swarming—Dividing—Transferring—Italizing—Introducing Queens—Extracting—Quilting and Handling Bees—The Newest Method of Preparing Honey for Market, etc. It is published in English and German. Price for either edition, 40c., postpaid, or \$3.00 per dozen.

Food Adulteration; What we eat and should not eat. This book should be in every family, where it ought to create a sentiment against the adulteration of food products, and demand a law to protect consumers against the many health-destroying adulterations offered as food. 200 pages. Paper, 50c.

The Dzierzon Theory.—presents the fundamental principles of bee-culture, and furnishes a condensed statement of the facts and arguments by which they are demonstrated. Price, 15 cents.

Honey, as Food and Medicine. by Thomas G. Newman. This is a pamphlet of 24 pages, discoursing upon the Ancient History of Bees and Honey; the nature, quality, sources, and preparation of Honey for the Market; Honey as an article of food, giving recipes for making Honey Cakes, Cookies, Puddings, Foun, Wine, &c., and Honey as Medicine, followed by many useful Receipts. It is intended for consumers and should be scattered by the thousands all over the country, and thus assist in creating a demand for honey. Published in English and German. Price for either edition, 6c.; per dozen, 50c.

Wintering Bees.—This pamphlet contains all the Prize Essays on this important subject, and were read before the Centennial Bee-Keepers' Association. The Prize—\$25 in gold—was awarded to Prof. Cook's Essay, which is given in full. Price, 10c.

Bees and the Management. This pamphlet was issued by the Italian Bee Company, and has had a large circulation. The price has been reduced from 20 cents to 10 cents.

The Hive I Use.—Being a description of the hive used by G. M. Doolittle. Price, 5c.

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Feb. 9.

THE AMERICAN BEE JOURNAL

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SPECIAL NOTICES.

PREMIUMS.—For a club of 2, weekly we will give a copy of "Bee-Culture;" for a club of 5, weekly, we will give a copy of "Cook's Manual," bound in cloth; for a club of 6, we give a copy of the JOURNAL for a year free. Do not forget that it will pay to devote a few hours to the BEE JOURNAL.

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Hamilton, Ontario, Jan. 24, 1881.

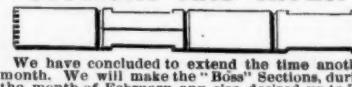
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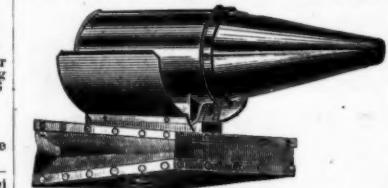
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of Tested Cyprian Queens, \$4.00; 1 frame

Nicaragua Queens, \$5.00; Colony of Ia-

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10c. per lb. Pure Com Foundation,

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